REINITZER, Sigrid; GOSSLER, Marcus: **Nachschlagetechniken in der Wissenschaft.** Eine praktische Anleitung zur Benutzung von Index- und Abstractswerken und deren Struktur. (Reference techniques in science. A practical instruction for the use of index- and abstracts-works and their structure). München – New York – London – Paris: Saur 1988. 230 p. ISBN 3-598-10751-X

Index- and abstracts-works, above all the citation indexes of the Institute for Scientific Information, enjoy a still increasing popularity, especially in natural sciences and in technical subjects. This fact alone will ensure the work by Reinitzer and Gossler the specialized public's close attention. It covers nearly all essential abstracts- and index-works, e.g., "Dissertation Abstracts International", "Current Contents", "Science Citation Index", "Chemical Abstracts", "Mathematical Reviews", "Physics Abstracts", "Biological Abstracts", "Index Medicus", "Social Sciences Citation Index", "Psychological Abstracts", "Arts & Humanities Citation Index", "Historical Abstracts". In spite of the authors' generous and welcome selection of reference books, in spite of (or because of) the significance commonly attached to this not newly developed, yet – in comparison to traditional genres such as bibliographies and catalogues – fairly recent genre, in spite of some rather enthusiastic comments by German librarians (cf., e.g., Hans-Albrecht Koch in "Börsenblatt des Deutschen Buchhandels", 5 August 1988, p.2336-37) the work by Reinitzer and Gossler should not be accepted without substantial reservation.

The preface (one of the major shortcomings of the book) conveys only a few essentials of index- and abstracts-works: for example, the difference between an abstracting journal and a catalogue of books; the various physical aspects of index-works (media such as print media and microforms); abstracts as instruments of information selection and – retrieval. Some crucial aspects of citation indexes – major concerns of information science and document retrieval, of the policy and history of science, of bibliometrics and scientometrics – are ignored: the exponential growth of information; citation connections and "inter-document linkages"[1] as a way of subject indexing; the techniques of bibliographic coupling and of co-citation coupling; citation analysis as an instrument of the evaluation of research, for example, as a way of compiling ranking lists. Since the preface (p.7-10) is all too short, the reader is in urgent need of further bibliographic references[2]; yet the book has neither a comprehensive bibliography nor – unlike, e.g., Helmut Allischewskis's "Bibliographienkunde", 2nd ed., Wiesbaden 1986 – specific bibliographies concerning individual abstracts- and index-works.

The main section of the book comprises commented, but unfortunately undated sample pages from the most prominent index- and abstracts-works. These comments – descriptive rather than evaluative – are, on the whole, very brief and 'ascetic', thus recalling the austerity of the preface, yet, in most cases, they give the most essential information: date of first publication, frequency of publication, contents, arrangement and structure of the works in question. Yet, too often, the comments leave out useful hints. The review of the "Arts & Humanities Citation Index", for example, does *not* comment on the concept of the title enrichment word, "used when the actual article title words offer no hint of its subject"[3]. It neither explains the principle of implicit citations (used in case of artworks, not formally cited) nor does it draw the reader's attention to the superb opportunity of locating "recent and uncollected works by creative writers"[4]. The "impact factor" of the SCI (p.49) is given a mere formalistic definition: "ratio of cit*ed* articles to cit*able* articles;" its significance as a ranking-factor, used for the comparative evaluation of periodicals, is not sufficiently appreciated. Some comments are rather sweeping, inaccurate, sometimes even misleading. The "Current Bibliographic Directory of the Arts & Sciences", for example, does not register "addresses of all authors, of whom at least one article in an ISI-publication has been exploited" (p.21). Only those authors are recorded, who have published within the report year and who have, furthermore, added their address to their published article. Many illuminating and instructive tables and statements from prefaces referring to some major interests of both library administration and the policy of science and language(s) are not commented upon: the simultaneousness of database and printed version in the case of "Excerpta Medica" (p.176); the enormous number of articles indexed for "Excerpta Medica" (p.176); the statement (in "Gmelin newsletter") that "our knowledge doubles within a decade" (p.88); the fact that 69 % of articles registered in "Chemical Abstracts" (1984) are written in English (p.79).

Besides, the evaluation of a reference work such as Reinitzer's and Gossler's "Reference techniques" has to take into account the following criteria: consistency and stringency of argumentation and manner of presentation; uniform treatment of separate sections and entries; clarity of layout and design; thoroughness of the editorial process in both textual and graphic respects; an efficient, i.e. a didactic and rhetorically attractive representation of facts; homogeneity in the use of registers (for example, technical jargon vs. non-specialized language; the adoption vs. translation of English terms). These requirements are also, as a rule, not entirely met.

The portrayal of the abstracts-works does without a severe formalization of entries, a strict uniformity, that, too, would have been desirable from a didactic point of view. The sequence of criteria, such as frequency of publication, date of first publication, contents and scope, varies without cogent reasons from review to review (cf., e.g., "Science Citation Index", p.41, vs. "Index to Scientific & Technical Proceedings", p.53). The exceptionally large number of misprints is a deplorable fault: especially striking are: "anallytical" instead of "analytical" (p.98), "Varfasser" instead of "Verfasser" (p.122), "Wer" instead of "Werk" (p.59), "Rioresearch" instead of "Bioresearch" (p.146). Equally conspicuous as these misprints are oversights such as "deutschen" instead of "englischen" (p.84) or the repetition of an identical text of considerable length (p.49-50). Now and then the reprographic quality of the book ist not sufficient; cf., e.g.,

p.43 where the explanatory notes on the "Source Index" of the "Science Citation Index" are 'cut off' in the right margin. Often the graphic representation is inconsistent and inconsequent. The review of the "Social Science Citation Index" emphasizes the difference between "cit*ing*" and "cit*ed*" by the following italics "zitier*end*er" vs. "zitier*t*er" (p.185), whereas the review of the "Science Citation Index" has "zitier*end*en" vs. "zitiert*en*": another lack of parallelism. In some instances notes and comments are badly placed. The division of space does not always come up to adequate didactic standards.

Since very often only a coherent sample section of the alphabet is shown, cross references from other sections of the alphabet are not reproduced. Thus, the syndetic element inherent in most indexes is denied a graphic representation. All in all Reinitzer's and Gossler's work is lacking in pedagogical vividness, and, of course, an impression of the three-dimensional voluminousness of the abstracts-works in question, filling dozens of shelves bursting with information, cannot be conveyed by a single book of 230 pages. The authors' expectation that a competent and intelligent use of index-works might be trained "even outside of libraries and their hustle and bustle" (p.10) with the mere assistance of their work is difficult, or even impossible, to fulfil.

Many technical terms are translated into German, some remain untranslated (e.g., "high-density journal", p.117); from time to time hybrid forms creep in (e.g., "Review-Autor" instead of "Review-author" or "Rezensent", p.201). The use of the word "Verweis" (cf. p.110 *et passim*) is disturbing. Whereas German usage usually demands a clear distinction between "Verweis" ('reprimand') and "Verweisung" ('reference'), in Austrian German "Verweis" is homonymous, thus having both meanings ('reprimand' and 'reference').

The work by Reinitzer and Gossler, offering manifold examples of specific classification systems (e.g., the subject classification of "Electrical and Electronics Abstracts", p.219; the systematic groups of "Astronomy and Astrophysics Abstracts", p.140; the major taxonomic classification of "Biosystematic Index", p.149) surely deserves a second edition: a revised edition, purged of misprints, provided with a detailed preface, generous comments and a more didactic styling.

Werner Bies

Notes:

1 Cronin, B.: The citation process. The role and significance of citations in scientific communication. Oxford: Taylor Graham 1984, p.26.

2 One could recommend, e.g., Nacke, O. (Ed.): Zitatenanalyse und verwandte Verfahren. Vorträge einer öffentlichen Sitzung während der 32. Jahrestagung der Deutschen Gesellschaft für Dokumentation, Oktober 1979. Bielefeld: Idis 1980. – Heiber, H.: Messung von Forschungsleistungen der Hochschulen. Ein empirischer Ansatz auf der Basis von Zitatenanalysen. Baden-Baden: Nomos 1983.

3 Guide & List of Source Publications. Arts & Humanities Citation Index 1987 Annual. Philadelphia 1988, p.25.

4 ibid., p.18.

5 Cf. Österreichisches Wörterbuch. Mittlere Ausgabe. Ed. by order of the Bundesministerium für Unterricht. Wien 1955, p.246.

Dr. Werner Bies, Universitätsbibliothek der FU Berlin
Garystr. 39, D-1000 Berlin 33.

SALTON, Gerard, McGILL, Michael J.: **Information Retrieval: Grundlegendes für Informationswissenschaftler.** Hamburg, McGraw-Hill 1987. 465p. ISBN 3-89028-051-X

The present book is a translation of Salton's and McGill's encyclopaedic handbook *Introduction to Modern Information Retrieval*. The text is essentially that of the original version published in 1983. Examples have been adapted to a German speaking environment, though, and the references have been updated and occasionally enriched to meet interests of German readers or to list material within easy reach in this country. The bibliographic sections concluding each chapter, however, were left in the states of the original to allow for screening the background of Salton's and McGill's book.

While four years may be considered almost a generation in computing and information retrieval, the present translation is not at all belated. For the book remains a standard introduction into information science. With regard to the proliferation of commercial databases and the progress of PC-based database management systems, its focus on information retrieval is most important. Keeping the textbook character in mind, the authors provided a step-by-step introduction into the technicalities of information retrieval and its computational context, illustrating the text by numerous diagrams and rounding off each chapter by a brilliant summary and a set of well devised exercises which lead to a rather thorough repetition. It is certainly an advantage that no prior knowledge of information retrieval is necessary; on the other hand, even experienced readers will find the book useful: Boolean operators are explained, and so are most advanced theories such as fuzzy sets.

The present review can but summarize the main topics of a book displaying the whole variety of information retrieval. Following an introduction explaining the differences of various data systems and structures, the authors start right from the scratch for a survey of information retrieval as supplied by commercial host systems. There are also extensive chapters on natural language processing as well as automated indexing and classification (notably on the experimental systems SMART and SIRE, employing relevance feedback, ranking of descriptors, clustering techniques etc.). Readers will also welcome information relevant for an assessment of retrieval systems, in terms of both recall/precision as well as cost/ effectiveness. As for the computational context, there is exhaustive coverage of hardware and software solutions and developments, including database management systems.

The translator, Dr. Wolfgang von Keitz (Saarbrücken), did an excellent job. That goes for the text itself, as well as for the exercises and the overall adaptation of the book for German readers. To say the book is a treasure of information and contains a wealth of advice for further reading is indeed quite close to a mild understatement.

Heiner Schnelling

Dr. H. Schnelling, Universitätsbibliothek
PF 5560, D-7750 Konstanz 1